Common Run Parameters

The following run parameters are applicable to the analysis regardless of which entity type you specified for the case on the main screen.

Bond Maturity Period for Compliance Costs
Note Maturity Period for Superfund Contribution
Penalty Payment Schedule

These entries define the financing period for each category of environmental expenditures. Generally, the maturity period of a debt instrument should not exceed the life of the funded project. A longer period will lower the annual debt repayment burden but also increase the total interest payments, with the net effect possibly increasing the affordability. (The uncertainty is a function of whether or not the constraint that references this input is binding – if the constraint is not binding, then modifying the default value will have no effect on the ability to pay result.) A longer period will also extend the annual repayment burden (even though it is lower) over a longer period of time, an important economic burden that is not a direct factor in the affordability calculations.

The compliance 25-year default value reflects the upper end of the useful life of a typical pollution control investment. The Superfund five-year default value, however, limits the annual debt repayment burden to a fairly short period of time, much shorter than the life of the typical remediation project. This is a policy decision to create a less burdensome standard for Superfund affordability relative to compliance cost affordability. The three-year penalty payment schedule reflects the maximum length that U.S. EPA is typically willing to accept.

Interest Rate

This entry determines the annual debt service for financing a given amount over a given maturity period. A lower interest rate may possibly increase the municipality's ability to pay. (The uncertainty is a function of whether or not the constraint that references this input is binding – if the constraint is not binding, then modifying the default value will have no effect on the ability to pay result.)

The default is based upon a composite of municipal issues, using the most recent data at the time of the annual model update. If you have specific information about the municipality's interest rates for recent debt issues, you can enter a custom value. Alternatively, you may wish to obtain a more recent average value from the Federal Reserve web site at http://www.federalreserve.gov/releases/h15/data.htm.

Minimum General Fund Balance as a % of Anticipated Expenditures and Net Transfers

The default value for the minimum General Fund sum of the "Assigned" and "Unassigned" balances as a percentage of budgeted/anticipated expenditures and net transfers out is 16.7 percent (i.e., two months out of the year). Any portion of the sum above this amount is considered currently available for environmental expenditures. The default value is based upon recommendations from the Government Finance Officers Association, which also outlines some criteria for tailoring the appropriate level to the particular circumstances of a municipality: Appropriate Level of Unrestricted Fund Balance in the General Fund. (Note that MUNIPAY's assessment is even more cautious compared to the GFOA's guidance since MUNIPAY excludes the "Committed" portion of the fund balance from its analysis.) A higher value may possibly decrease the municipality's ability to pay. (The uncertainty is a function of whether or not the constraint that references this input is binding – if the constraint is not binding, then modifying the default value will have no effect on the ability to pay result.)

9925551

Affordability Analysis Summary

The three rows in the table at the top of the screen correspond to the three types of environmental expenditures, in order of their priority. The first column displays the amount sought for each type of expenditure. The next two columns display the funds that are currently available to pay for the expenditures. (If the analysis is for a City/Town/Village with no relevant Enterprise Fund, then the first of these two columns will always display a zero.) The following column displays the funds that are available through financing. The final column displays the total available funds, which simply adds together the third through fifth columns.

If the amount in the final column is equal to the sought amount in the first column, then the sought amount is affordable within the specified run parameters. If the amount in the final column is less than the sought amount, then the sought amount is not affordable within the specified run parameters, and the amount in the final column is instead the maximum affordable amount.

The same screen provides a breakdown for the currently available funds calculation. The two columns correspond to the Enterprise Fund and the General Fund. The first row displays the most recent balance (i.e., the user's entry for the General Fund, and — if applicable — the Enterprise Fund's excess of current assets over current liabilities). The recommended balance in the second row is derived from the percentage value specified in the Options screen. The available amount in the third row is simply equal to the excess (if any) of the first row over the second. This amount is then distributed among the sought expenditures in order of their priority (with the default order being compliance, Superfund, then penalty).

In the same section of this screen, MUNIPAY also displays for an Enterprise Fund the initial average user fees and the final fees once the affordable expenditures are incurred by the municipality (plus potentially any increases to bring revenues in line with expenses, if the municipality is starting off with an annual shortfall). Although the affordability analysis does not use these figures directly (instead focusing on user fees as a percentage of household income), they are displayed here as potentially useful background information.

The final section of this screen provides a list of the financial inputs and run parameters that MUNIPAY used for the analysis.

Currently Available Funds

The currently available funds calculations is the least complex aspect of the affordability analysis, involving only multiplication and subtraction. The analysis starts with the most recent Fund balance (i.e., the Enterprise Fund's — if applicable — excess of current assets over current liabilities, and the user's entry for the General Fund). Then MUNIPAY calculates the recommended balance as equal to default percentage (or some other value, if the default value is modified) of anticipated expenses/expenditures for the Fund (as entered by the user). The currently available amount is then simply the excess (if any) of the Fund balance over the recommended balance. This amount is then distributed among the sought expenditures in order of their priority (with the default order being compliance, Superfund, then penalty).

If you want to confirm your understanding of the calculations, open the spreadsheet to the "print" worksheet and examine the formulas under "Currently Available Details". The formulas generally reference cells named for the inputs from the financial data entry screen.